U.S. Application Serial No. 10/575,658 Atty. Docket No. 10191/4142 Response to Office Action of May 13, 2010

## **AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions, and listings, of claims in the application.

## **LISTING OF THE CLAIMS:**

- 1-9. (Canceled).
- 10. (Currently Amended) A device for determining an instant a vehicle makes contact with an impact object, comprising:
- [[an]] a determining arrangement for determining the instant of contact by approximating a signal derived from an acceleration signal using a quadratic function.
- 11. (Original) The device as recited in claim 10, further comprising:
  an arrangement for one of filtering the acceleration signal and integrating the acceleration signal once or twice.
- 12. (Currently Amended) The device as recited in claim 10, further comprising: an wherein the determining arrangement for taking takes into account an impact velocity when determining the instant of contact.
- 13. (Currently Amended) The device as recited in claim 12, wherein the <u>determining</u> arrangement for taking into account the impact velocity determines the impact velocity as a function of a vehicle velocity.
- 14. (Currently Amended) The device as recited in claim 13, wherein the <u>determining</u> arrangement for taking into account the impact velocity determines the impact velocity as a function of a surrounding-field signal.
- 15. (Currently Amended) The device as recited in claim 10, further comprising: an approximating arrangement for approximating the signal using at least two threshold values.

U.S. Application Serial No. 10/575,658 Atty. Docket No. 10191/4142 Response to Office Action of May 13, 2010

16. (Canceled).

- 17. (Currently Amended) The device as recited in claim [[16]] 10, wherein the determining arrangement for determining determines the instant of contact from a vertex of the quadratic function.
- 18. (Currently Amended) The device as recited in claim 17, further comprising: an wherein the determining arrangement for taking takes into account an impact velocity linearly in the determination of the instant of contact.
- 19. (New) The device as recited in claim 10, further comprising:
  an approximating arrangement for approximating the signal using four threshold values.
- 20. (New) The device as recited in claim 13, further comprising:
  an approximating arrangement for approximating the signal using four threshold values.
- 21. (New) The device as recited in claim 13, further comprising:
  an approximating arrangement for approximating the signal using two threshold values.
- 22. (New) The device as recited in claim 10, wherein the determining arrangement determines the instant of contact from a vertex of the quadratic function, and wherein the determining arrangement takes into account an impact velocity linearly in the determination of the instant of contact.
- 23. (New) The device as recited in claim 22, further comprising: an approximating arrangement for approximating the signal using two threshold values.

U.S. Application Serial No. 10/575,658 Atty. Docket No. 10191/4142 Response to Office Action of May 13, 2010

24. (New) The device as recited in claim 13, further comprising: an approximating arrangement for approximating the signal using four threshold values.